

WNYRIC STANDARDS

Add/Change Request Form

Submitted By:

Name David Joseph

School District CA BOCES

Date 11-15-16

Telephone Number 716-376-8229

E-Mail ID david_joseph@caboces.org

Hardware or Software Recommended Dell Campus Data Center switches

Standards Category:

New:

Existing: Networking

Action Requested:

Add: Dell Network Switches

Modify:

Remove:

Product Name:

S4048-ON S4048T

Product Manufacturer:

Dell

Product Description:

10G/40G TOR and CORE switches

(Attach Product Technical Sheets)

see attached

Additional Comments:

We have 5x Dell switches in production of our NOC. 2x switches run Cumulus networks for a Linux like interface.

The other 3x run DNOS OS which is just like Cisco. This spine leaf upgrade provides 10G infrastructure for all our servers

EVALUATION CRITERIA

A. Product Reliability

1. Vendor / Product track record

All the Dell switches have been running in production in our 10G infrastructure for 5-6 months. NO downtime has been experienced and no changes to config has been required

2. Vendor support required

During installation Erie 1 BOCES and Dell direct network engineer assisted with install. Full interoperability exists to existing Cisco and Avaya switches. Ongoing Dell provides 24x7x365 support as well as BOCES WAN senior support

3. Ease of use

The twisted pair TOR switches run a DNOS OS which is almost identical to Cisco so easy to use and no learning curve. The core switches run Cumulus Linux which is very similar to Junos and Unix which also have a small learning curve. We like to choice of differ OS's

4. Support required by RIC / school district

Erie 1 BOCES WAN senior was very helpful with the installation because he has extensive Unix background was useful. However we are also able to leverage our current Linux server admins because the config is exactly the same as a server. Little support was needed for the other Cisco like ones

5. Potential to become "White Elephant"

We do not look at Dell switches as "one offs" instead we see Dell as the future in networking. being able to separate hardware and software and get different operating systems on a switch reduces costs and increases flexibility. Dell financails strong with recent EMC purchase of \$60 Billion

6. Training requirements

When the Cisco like DNOS is installed on the Dell switch no additional training is needed since we know Cisco CLI. For the Cumulus OS there is also little training for Linux admins because config is just like a Linux server

B. Product-Price / Acquisition

1. Cost effectiveness

The Dell switches provide are low cost similar to Avaya with performance and config like Cisco. In addition TRUE lifetime warranty will save us in the future. Replacement is available as long as we continue to use switch

2. Acquire via NYS Contract or local bid

All Dell switches are currently on OGS contract and NCPA so purchasing is easy. In addition there are numerous Dell certified channel partners to assist as needed

3. Cost of operation and support

Operational support is low since the CLI is like Cisco and standard Linux Ongoing support 24x7x365 is much less expensive than Cisco Smartnet

4. Do any legal or contractual issues exist

none

C. Product-Relationship to Other Standards

1. Compatibility to existing Standards

Dell switches are very open and support multiple operating systems. We had the choice for Linux on some switches and Cisco like on others. Both interoperated perfectly and also uplinked to our existing Avaya and Cisco

2. What other options are available

In addition to Cumulus Networks (Linux Like) and DNOS (similar to Cisco) Dell offers SPB features with IP Infusion, Analytics with Pluribus and fabrics with Big Switch Networks. The Campus edge PoE+ are also useful

3. Relationship to previous research and changes since that time

Over \$440k of Dell switches are running in WNYRIC equallogic and servers

D.

BOCES-Service Needs

1. Define and explain the current need

We desire Dell switches be added to standards for ongoing WAN Senior support and future AID based purchases. The low price like Avaya and the performance Like Cisco is attractive. True lifetime is very important for the future

2. What existing CoSer and RIC Service does it fall under

Technology services WAN

3. What is the scope and size of the school population to be served

CA BOCES currently serves over 22 component districts and over 10,000 students whose traffic passes over Dell switches currently in production

4. Instructional and/or administrative goal supported

We currently manage our new Dell switches will all the current onsite tools and also the WNYRIC remote management tools like Intermapper.

5. Results of survey determining school district interest in using this product

CA BOCES is very happy with the Dell 10G switches. The Cisco like performance is good and the low cost like Avaya presented very high value

Signature of person making request David Joseph